

Helsinki GSE Microeconomic Theory I
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Microeconomic Theory I Course Outline

The first part of the Ph.D. and research master sequence in microeconomic theory is an introduction to individual economic decision making. It develops the formal model of rational economic agents and applies this model to consumer and producer theory. Connections to decision making in markets (covered in detail in Microeconomic Theory II) and decision making in groups (covered under the title Game Theory in Microeconomic Theory III) are discussed.

In the first weeks of the course, we analyze consumer choice through the concepts of a preference relation, a choice function and a utility function. We review classical results from consumer theory and provide a variety of methods that will also be applied in later courses.

The second part of the course covers producer theory and choice under uncertainty. The course concludes with a discussion of alternative theories of decision making and the empirical and experimental evidence on all the models covered in this course.

Required textbooks:

The primary source for this course is:

Mas-Colell, Whinston and Green: Microeconomic Theory, Oxford University Press, 1995.

Other books that you may find include the slightly less formal:

Jehle and Reny: Advanced Microeconomic Theory, Addison Wesley, 2011.

And the slightly more formal

David Kreps, Microeconomic Foundations I: Choice and Competitive Markets, Princeton University Press, 2013.

Another nice (and not too overwhelming) source is:

Ariel Rubinstein: Lecture Notes in Microeconomic Theory, 2018.

This book is available in electronic format at:

<http://gametheory.tau.ac.il/arielDocs/>

For more details on consumer theory, the classic reference is:

Deaton and Muellbauer: Economics and consumer behavior. Cambridge University Press. 1980.

On choice under uncertainty, the following is a great reference for standard material, but it does not cover the latest developments.

David Kreps, Notes on The Theory of Choice, Underground Classics in Economics, 1988.

Revealed preference theory has witnessed a renaissance and it is well covered in:

Chambers and Echenique: Revealed Preference Theory. Cambridge University Press, 2016.'

Expected student performance I expect you to read the relevant parts in the class textbook by Mas-Colell et al. I do not expect you to read all the other that I have listed above. I have will serve as alternative sources when you want to deepen your understanding on some particular topics in the course.

Problem sets are probably the most important part of the course. As a result, I give this year 20% of the grade based on problem set solutions. You may work individually on the problems, but each student should submit a separate answer sheet by the deadline of the problem set.

I will also give you the opportunity to submit an essay on one of the topics on the list below. In this essay, you should demonstrate your mastery of the material that you have searched and studied independently by writing a 5-6 page essay on your chosen topic. More detailed instructions for the essay are give later. You may also propose a topic of your own and I will determine if it is suitable for this course.

The essay gives you up to 20 extra points for the course where the course maximum number of points is otherwise 20 on problem sets and 80 on final examination.

Tentative Schedule:

- Monday September 2: Modeling Choice MWG, Chapters 1,
- Tuesday, September 3: Choice and Budget Sets MWG, Chapter 2

- Monday, September 9: Revealed Preference and Compensated Law of Demand MWG, Chapter 2
- Tuesday, September 10: Utility Maximization: Deriving Optimal Demands MWG, Chapter 3
- Monday, September 16: Utility Maximization: Duality MWG, Chapter 3
- Tuesday, September 17: Utility Maximization: Topics in Demand Theory MWG, Chapter 3
- Monday, September 23: Theory of the Firm: Production Set MWG, Chapter 5
- Tuesday, September 24: Theory of the Firm: Duality MWG, Chapter 5
- Monday, September 30: Choice under Uncertainty: Expected Utility Theorem MWG, Chapter 6
- Tuesday, October 1: Choice under Uncertainty: Risk and Risk Aversion MWG, Chapter 6
- Monday, October 7, Tuesday, October 8: Alternative Approaches to Decision Theory: Choice from menus, ambiguity aversion, stochastic choice

Additional readings will be provided in the handouts to the course.

Here is also a preliminary **list of possible topics for the essay**:

1. Aggregating Preferences and Arrow's Impossibility Theorem
2. Other regarding Preferences
3. Value of Information and Blackwell's Theorem
4. Dynamic Choice and Backward Induction
5. Reference Dependent Utility
6. Biases in Probability Assessments